

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary
Gloria L. McCutcheon, Regional Director

Southeast Regional Headquarters
2300 N. Dr. ML King Drive, PO Box 12436
Milwaukee, Wisconsin 53212-0436
Telephone 414-263-8500
FAX 414-263-8483
TDD 414-263-8713

December 14, 1999

Mr. Bill Immich
Director of Public Works
P.O. Box 107
Plymouth, Wisconsin 53073

SUBJECT: Request for closure, City of Plymouth Municipal Garage, 1004 Valley Road, Plymouth, Wisconsin. BRR-LUST FID#460153870.

Dear Mr. Immich:

At the request of your environmental consultant, we have reviewed the referenced case file for closure. Based on the information presented, we concur with environmental consultant's recommendation that no further action is necessary. The department reserves the right to reopen this case pursuant to s. NR726.09, Wisconsin Administrative Code (WAC), should additional information regarding site conditions indicate contamination on or from the site poses a threat to public health, safety or welfare or the environment.

To complete the closure of this site, you must place a groundwater use restriction on the property deed at the county register of deeds office which specifies the legal description of the property, the location, type, and concentration of the contaminants and includes the following language:

Natural attenuation has been approved by the Department of Natural Resources to remediate groundwater exceeding ch. NR 140 groundwater standards within the boundaries of this property. Construction of wells where water quality exceeds the drinking water standards in ch. NR809 is restricted by chs. NR811 and NR812. Special well construction standards or water treatment requirements, or both, or well construction prohibitions may apply. Anyone who proposes to construct or reconstruct a well on this property is required to contact the Department of Natural Resources' Bureau of Drinking Water and Groundwater to determine what specific requirements are applicable prior to constructing or reconstructing a well on this property.

Within 60 days all of the groundwater monitoring wells at the site must be abandoned in accordance with WAC NR 141 and the completed abandonment forms must be submitted to the department. Once the department receives the abandonment forms and confirmation the restriction was placed on the deed, this case will be tracked as closed on our computer tracking system. If you have any questions about this letter, please call me at 414-263-8589.

Sincerely,


Gina Keenan
Hydrogeologist

c: Kapur & Associates, Inc.
SER case file

1572407

SHEBOYGAN COUNTY, WI
RECORDED ON

06-08-2000 11:25 AM

DARLENE J. NAVIS
REGISTER OF DEEDS

RECORDING FEE: 22.00
TRANSFER FEE:

038413 6

Document Number

GROUNDWATER USE RESTRICTION

Declaration of Restrictions

In Re: See Description Attached Hereto

STATE OF WISCONSIN)
) ss
COUNTY OF SHEBOYGAN)

WHEREAS, the City of Plymouth is the owner of the above-described property.

Recording Area

Name and Return Address

RONALD W. DAMP
ATTORNEY AT LAW
PLYMOUTH, WISCONSIN 53073

Parcel Identification Number (PIN)

WHEREAS, one or more [see Tables 1 and 2 for type of contaminant(s)] discharges have occurred on this property. Benzene (see Table 2 for Type of contaminants)-contaminated groundwater above ch. NR 140, Wis. Adm. Code, enforcement standards existed on this property at the following location(s) on the following date(s): see Table 1 for description of type and concentration of groundwater contamination and with the date and location or locations on the property where this groundwater contamination was found and soil contamination existed on the property at the following location(s) on the following dates: see Table 2 description of type and concentration of residual soil contamination with the date and location where samples were taken. See attached maps (Figures 1 and 2) that show monitoring well and boring/sampling locations.

WHEREAS, it is the desire and intention of the property owner to impose on the property restrictions which will make it unnecessary to conduct further groundwater or soil remediation activities on the property at the present time.

WHEREAS, natural attenuation has been approved by the Department of Natural Resources to remediate groundwater contamination exceeding ch. NR 140 groundwater standards within the boundaries of this property.

WHEREAS, construction of wells where the water quality does not comply with drinking water standards in ch. NR 809 is restricted by chs. NR 811 and NR 812, Wis. Adm. Code. Special well construction standards or water treatment requirements, or both, or well construction prohibitions may apply.

NOW THEREFORE, the owner hereby declares that all of the property described above is held and shall be held, conveyed or encumbered, leased, rented, used, occupied and improved subject to the following limitation and restrictions:

Anyone who proposes to construct or reconstruct a well on this property is required to contact the Department of Natural Resources' Bureau of Drinking Water and Groundwater, or its successor agency, to determine what specific requirements are applicable, prior to constructing or reconstructing a well on this property. No well may be constructed on this property unless applicable requirements are met.

[Optional Provision:] If construction is proposed on this property that will require dewatering, or if groundwater is to be otherwise extracted from this property, while this groundwater use restriction is in effect, the groundwater shall be sampled and analyzed for contaminants that were previously detected on the property and any extracted groundwater shall be managed in compliance with applicable statutes and rules.

This restriction is hereby declared to be a covenant running with the land and shall be fully binding upon all persons acquiring the above-described property whether by descent, devise, purchase or otherwise. This restriction benefits and is enforceable by the Wisconsin Department of Natural Resources, its successors or assigns. The Department, its successors or assigns, may initiate proceedings at law or in equity against any person or persons who violate or are proposing to violate this covenant, to prevent the proposed violation or to recover damages for such violation.

Any person who is or becomes owner of the property described above may request that the Wisconsin Department of Natural Resources or its successor issue a determination that one or more of the restrictions set forth in this covenant is no longer required. Upon the receipt of such a request, the Wisconsin Department of Natural Resources shall determine whether or not the restrictions contained herein can be extinguished. If the Department determines that the restrictions can be extinguished, an affidavit, attached to a copy of the Department's written determination, may be recorded to give notice that this deed restriction, or portions of this deed restriction, are no longer binding.

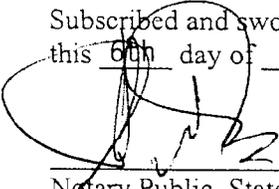
[Optional provision only required if the property is owned by a corporation, partnership or governmental entity:] By signing this document, William B. Kiley, Mayor asserts that he/she is duly authorized to sign this document on behalf of the City of Plymouth.

IN WITNESS WHEREOF, the owner of the property has executed this Declaration of Restrictions, this 6th day of June, 2000.

Signature: 

Printed Name: William B. Kiley, Mayor

Subscribed and sworn to before me
this 6th day of June, 2000



Notary Public, State of Wisconsin
Ronald W. Damp
My commission is permanent

This document was drafted by the Wisconsin Department of Natural Resources.
Publication: RR606

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Description of Municipal Garage Property

Part of the Southeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ Section 27, Township 15 North, Range 21 East, City of Plymouth, Sheboygan County, Wisconsin.

Commencing at the intersection of the North right of way line of Valley Road and the West Right of way line of Commerce Street, said point marking the point of beginning, thence North along said Westerly right of way line a distance of 570.58 feet, thence S $89^{\circ} 38' 25''$ W a distance of 747.18 feet to a point 150 feet East of the East right of way line of South Street, thence S $0^{\circ} 27' 16''$ W parallel with the East right of way line of South Street a distance of 192.00 feet, thence N $89^{\circ} 56' 18''$ E a distance of 339.77 feet, thence South 307.92 feet to the north right of way line of Valley Road, thence along said north right of way line to the point of beginning.

Legibility Impaired

Table 1. Residual Groundwater Contamination
 City of Plymouth-Municipal Garage
 1004 Valley Road
 Plymouth, Wisconsin

Description	Concentration	Sample Location/Description	Date
DRO (ppm)			
	110	MW-1/ UST Location B	10/28/98
	41	MW-2/Southwest-UST Location B	10/29/98
	78	MW-4/ Northwest-UST Location B	10/28/98
	63	MW-6/South of Valley Road	10/29/98
	57	MW-8/South of Valley Road	10/29/98
	110	MW-9/UST Location B	10/28/98
	65	MW-11/Southeast-UST Location B	10/28/98
	250	MW-1A/UST Location A	7/23/98
GRO (ppm)			
	420	MW-1/ UST Location B	10/28/98
	97	MW-3/South-UST Location B	10/29/98
	39	MW-9/UST Location B	10/28/98
Benzene (ppb)			
	18	MW-1/ UST Location B	10/28/98
	24	MW-3/ South-UST Location B	10/29/98
	17	MW-9/ UST Location B	10/28/98
Toluene (ppb)			
	4.50	MW-1/ UST Location B	10/28/98
	0.70	MW-3/ South-UST Location B	10/29/98
	0.80	MW-9/ UST Location B	10/28/98
	0.30	MW-10/Southeast-UST Location B	10/29/98
Ethylbenzene (ppb)			
	20	MW-1/ UST Location B	10/28/98
	18	MW-3/ South-UST Location B	10/29/98
	5.8	MW-9/ UST Location B	10/28/98
O-xylenes (ppb)			
	3.0	MW-1/ UST Location B	10/28/98
	0.90	MW-9/ UST Location B	10/28/98
p,m-xylenes (ppb)			
	33.0	MW-1/ UST Location B	10/28/98
	5.6	MW-9/ UST Location B	10/28/98
1,2,4-Trimethylbenzene (ppb)			
	37	MW-1/ UST Location B	10/28/98
	9.9	MW-3/ South-UST Location B	10/29/98
	4.5	MW-9/ UST Location B	10/28/98
1,3,5-Trimethylbenzene (ppb)			
	11	MW-1/ UST Location B	10/28/98
	1.1	MW-9/ UST Location B	10/28/98

Notes:

GRO = Gasoline Range Organics; DRO = Diesel Range Organic Organics; ppm = parts per million; ppb = parts per billion.

Table 2. Residual Soil Contamination
 City of Plymouth-Municipal Garage
 1004 Valley Road
 Plymouth, Wisconsin

Description	Sample Location/Description	Date
PAHs	Boring A-1/UST Location A	12/12/95
PAHs	Boring A-4/ UST Location A	12/12/95
PAHs	Boring B-1A/UST Location A	5/16/96
PAHs	Boring B-1/South-UST Location B	12/11/95
PAHs	Boring B-2/East-UST Location B	12/11/95
GRO, VOCs, PAHs	Boring B-3/North-UST Location B	12/11/95
GRO, DRO, VOC, PAHs	Boring B-4/West-UST Location B	12/11/95
Total VOCs*	Boring B-5/South-UST Location B	12/11/95
Total VOCs*	Boring B-6/West-UST Location B	12/12/95
VOCs	Boring B-9/Southeast-UST Location B	5/16/96
PAHs	Boring B-10/Southwest-UST Location B	5/16/96
GRO, DRO, VOC, PAHs	Boring B-11/South-UST Location B	5/16/96
GRO, VOCs	Boring B-12/West-UST Location B	5/16/96
DRO	Boring B-13/Northwest-UST Location B	5/16/96
DRO, VOCs, PAHs,	Boring B-14/UST Location B	5/16/96
GRO, DRO, VOCs, PAHs	Boring B-15/Northwest-UST Location B	5/16/96
VOCs	Boring B-16/North-UST Location B	5/16/96
GRO, DRO, VOCs, PAHs	Boring B-17/Southwest-UST Location B	5/16/96
DRO, VOCs	Boring B-18/South of Valley Road	10/31/96
GRO, VOCs	Boring B-19/South of Valley Road	10/31/96
GRO, DRO, PVOCs	Post-Excavation Sample B-1/Northwest-UST Location B	11/18/97
GRO, DRO, PVOCs	Post-Excavation Sample B-2/Northwest-UST Location B	11/18/97
GRO, DRO, PVOCs	Post-Excavation Sample B-3/West-UST Location B	11/18/97
GRO, DRO, PVOCs	Post-Excavation Sample B-4/West-UST Location B	11/18/97
GRO, DRO, PVOCs	Post-Excavation Sample B-5/West-UST Location B	11/18/97
GRO, DRO, PVOCs	Post-Excavation Sample W-1/Northwest-UST Location B	11/18/97
GRO, DRO, PVOCs	Post-Excavation Sample W-2/Northwest-UST Location B	11/18/97
GRO, DRO, PVOCs	Post-Excavation Sample W-3/UST Location B	11/18/97
GRO, DRO, PVOCs	Post-Excavation Sample W-4/Southwest-UST Location B	11/18/97
GRO, DRO, PVOCs	Post-Excavation Sample W-5/ Southwest-UST Location B	11/18/97
DRO	Post-Excavation Sample W-6/West-UST Location B	11/18/97

Notes:

* = Maximum Photoionization Detector Values; GRO = Gasoline Range Organics; DRO = Diesel Range Organic Organics; VOCs = Volatile Range Organic Compounds; PVOCs = Petroleum Volatile Organic Compounds; PAHs = Polynuclear Aromatic Hydrocarbons.

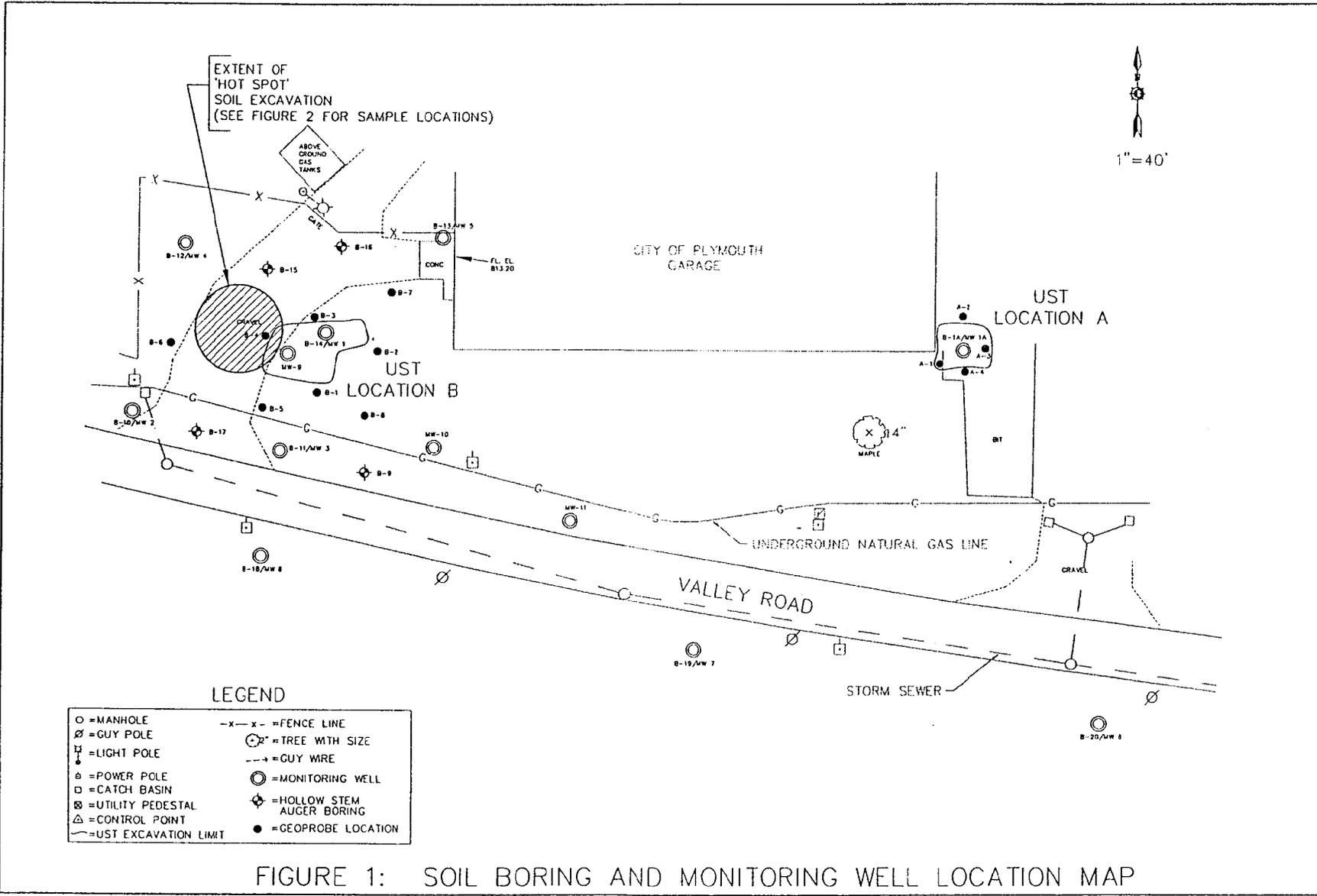


FIGURE 1: SOIL BORING AND MONITORING WELL LOCATION MAP

DESIGNED BY: DATE: 07/10/95	NO.	REVISIONS	DATE
SCALE: BASE ON ORIGINAL DIMENSIONS TO SCALE			
<p>KAPUR & ASSOCIATES, INC. CONSULTING ENGINEERS 1004 VALLEY ROAD PLYMOUTH, WISCONSIN (414) 351-8888 FAX 414-351-4117</p>			
<p>CITY OF PLYMOUTH MUNICIPAL GARAGE 1004 VALLEY ROAD PLYMOUTH, WI 53073</p>			
PROJECT NO.			
SHEET NO.			

DATE & TIME LAST MOD: 10/17/98 Line 10.22 PLOT DATE & TIME: 10/17/98 Time 10.33 DATE SCALE: 1" = 20'

ABBREVIATIONS:

- GRO = Gasoline Range Organics (ppm)
- DRO = Diesel Range Organics (ppm)
- Pb = Total Lead (ppm)
- Cd = Cadmium (ppm)
- B = Benzene (ppm)
- T = Toluene (ppm)
- E = Ethylbenzene (ppm)
- X = Total Xylenes (ppm)
- TMB = Total Trimethylbenzenes (ppm)
- MTBE = Methyl Tertiary Butyl Ether (ppm)
- ppm = Parts Per Million

NOTE: PAH Results are not shown

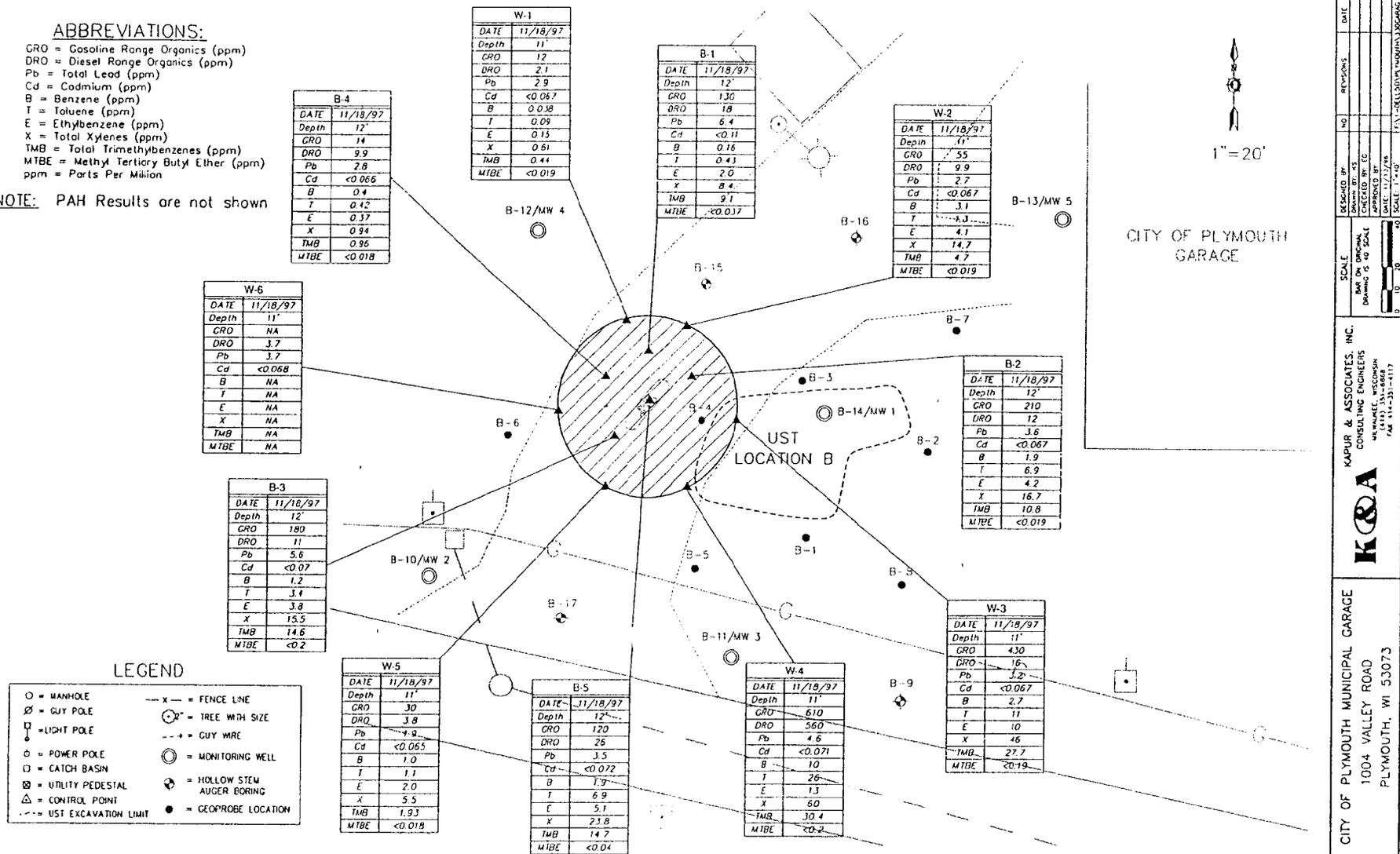
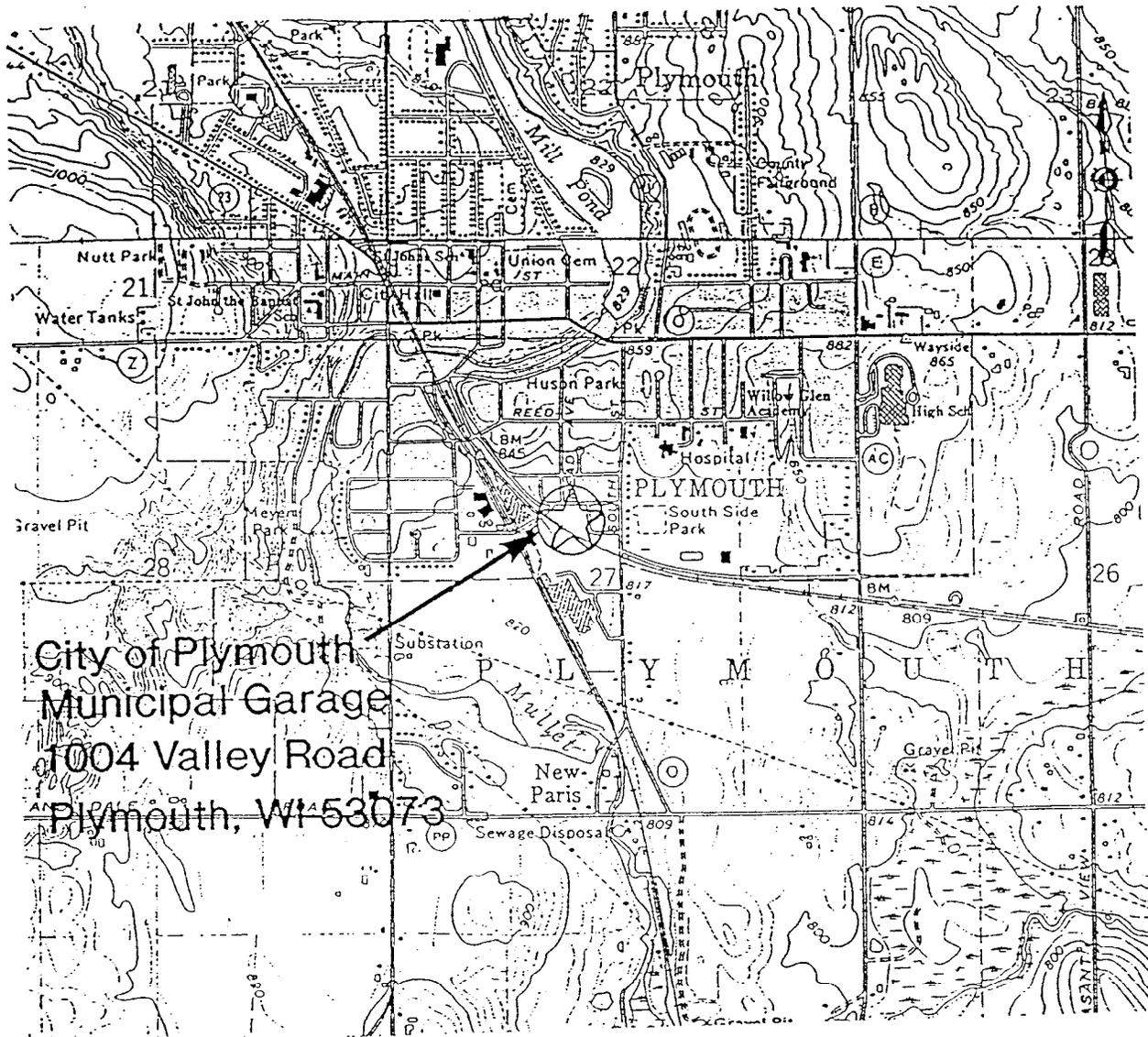


FIGURE 2: LABORATORY VERIFICATION SAMPLE RESULTS MAP

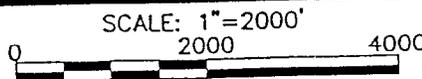
DATE		REVISIONS			
DESIGNED BY	NO.	NO.	NO.	NO.	NO.
SCALE	SCALE	SCALE	SCALE	SCALE	SCALE
<p>K&A</p> <p>KAPUR & ASSOCIATES, INC. CONSULTING ENGINEERS MILWAUKEE, WISCONSIN (414) 351-6666 Fax: (414) 351-4117</p>					
<p>CITY OF PLYMOUTH MUNICIPAL GARAGE 1004 VALLEY ROAD PLYMOUTH, WI 53073</p>					
PROJECT NO.					
SHEET NO.					



SITE LOCATION MAP AND LOCAL TOPOGRAPHY

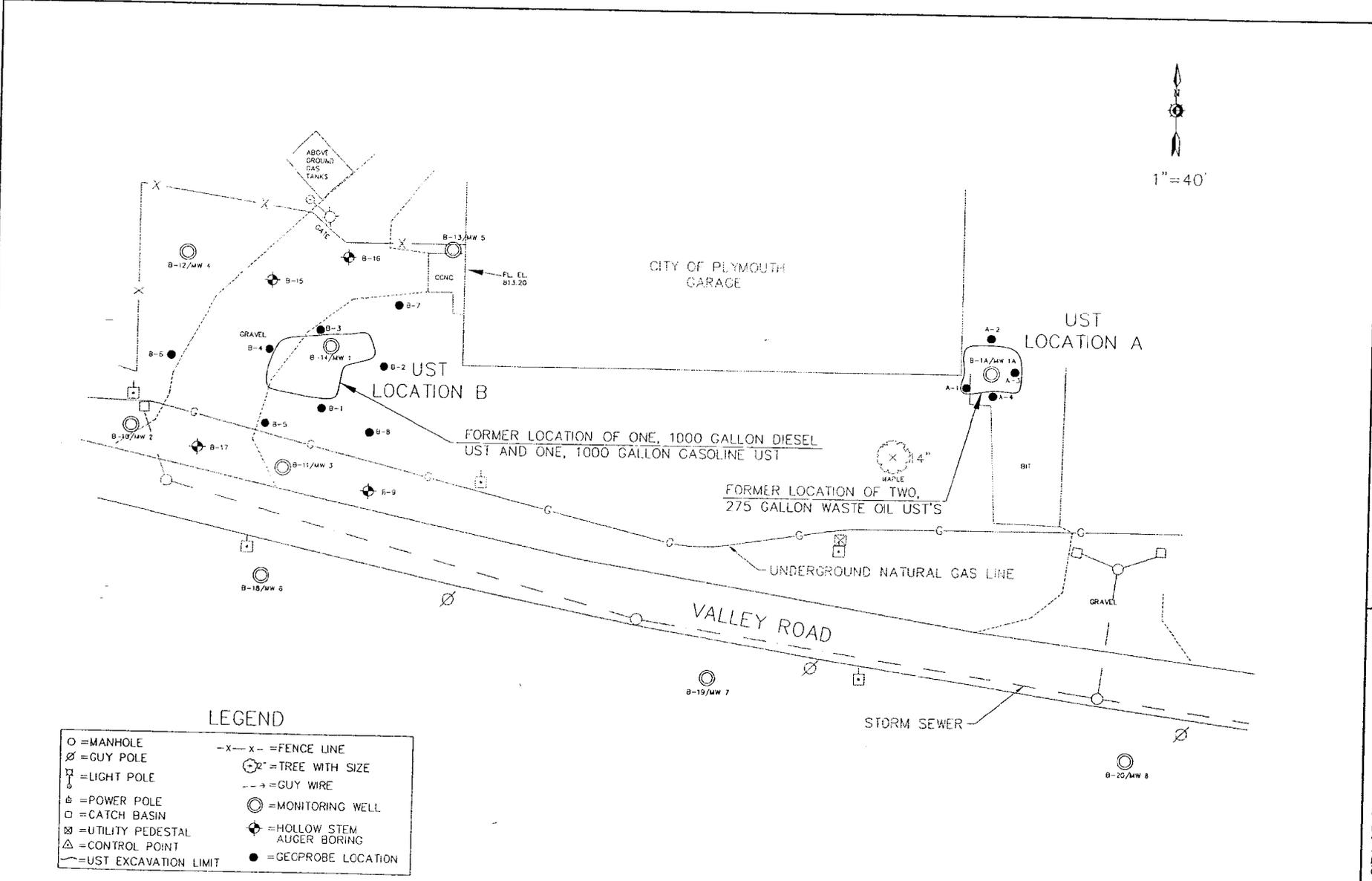
FIGURE 1

SITE LOCATION MAP



K&A
 KAPUR & ASSOCIATES
 CONSULTING ENGINEERS
 MILWAUKEE, WISCONSIN

FILENAME: N:\BELLS\VALLEY\MUNICIPAL GARAGE\CAD\DWG DATE & TIME LAST EDIT: 02/24/97 Time 14:58 DATE & TIME LAST EDIT: 02/24/97 Time 14:58 DIMSCALE: 1" = 20.00



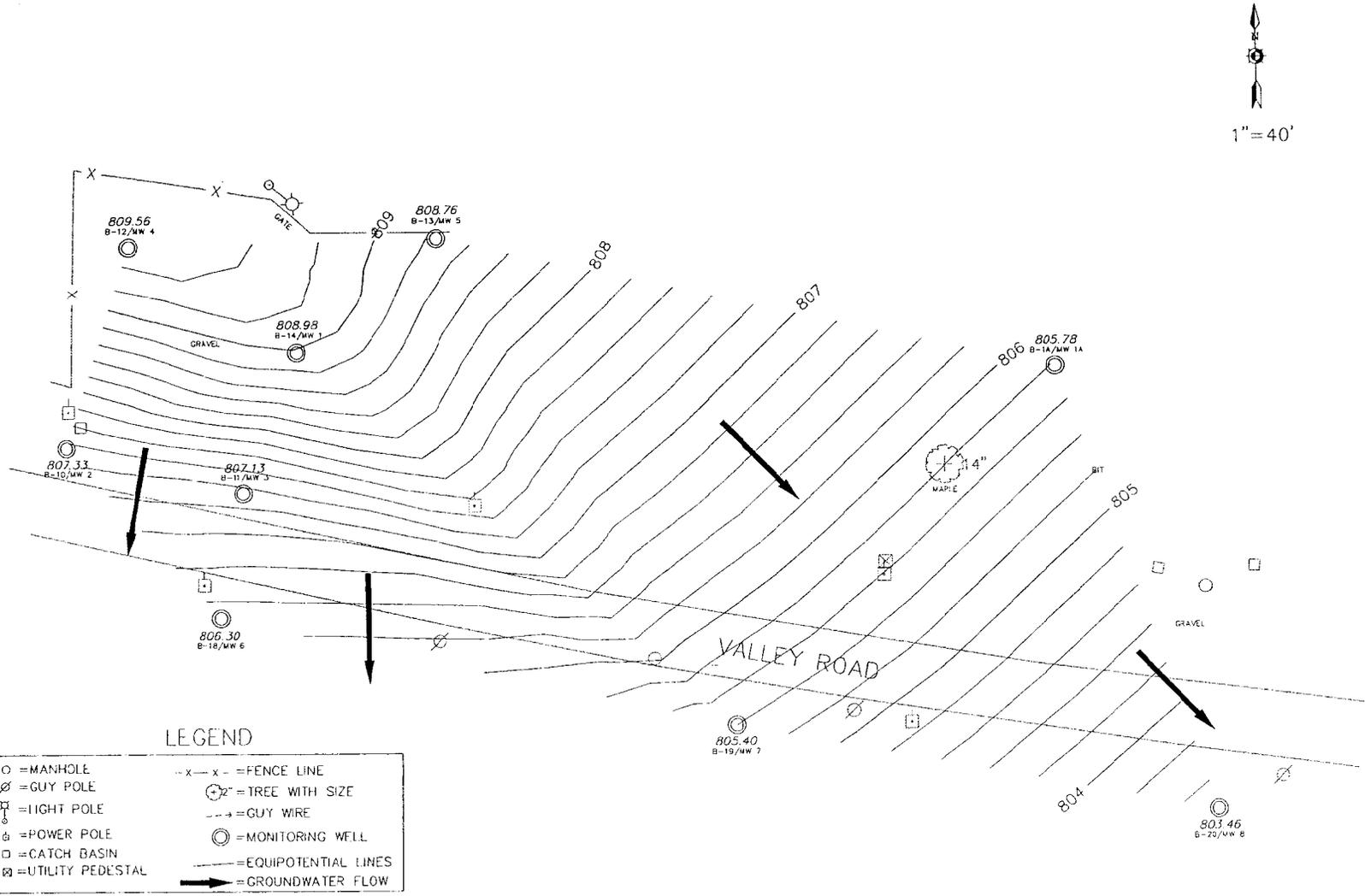
LEGEND

○ = MANHOLE	-x-x- = FENCE LINE
⊗ = GUY POLE	⊗ = TREE WITH SIZE
⊞ = LIGHT POLE	- - -> = GUY WIRE
⊞ = POWER POLE	⊙ = MONITORING WELL
□ = CATCH BASIN	⊕ = HOLLOW STEM AUGER BORING
⊞ = UTILITY PEDESTAL	● = GECPROBE LOCATION
△ = CONTROL POINT	
~ = UST EXCAVATION LIMIT	

DESIGNED BY:	INC.	REVISIONS	DATE
DRAWN BY: KS			
CHECKED BY: EC			
APPROVED BY:			
DATE: 12/13/96			
SCALE: 1"=40'			
SCALE: BAR ON ORIGINAL DRAWING IS TO SCALE			
0 10 20 40			
KAPUR & ASSOCIATES, INC. CONSULTING ENGINEERS MANITOWISH WISCONSIN (414) 351-6668 FAX 414-351-4117			
CITY OF PLYMOUTH MUNICIPAL GARAGE 1004 VALLEY ROAD PLYMOUTH, WI 53073			
PROJECT NO.			
SHEET NO.			

FIGURE 2: SITE PLAN

FILENAME: \\FELLD0V\FLYMOU\TA330GARG\CAQ\0175 DATE & TIME LAST ED: 03/11/97 Time 09:35 DATE & TIME LAST ED: 03/11/97 Time 09:35 PLOT DATE & TIME: 03/11/97 Time 09:35 DIMSCALE: 1" = 20.00



1" = 40'

LEGEND

○ = MANHOLE	-x-x- = FENCE LINE
⊗ = GUY POLE	⊕ = TREE WITH SIZE
⊕ = LIGHT POLE	- - - = GUY WIRE
⊙ = POWER POLE	○ = MONITORING WELL
□ = CATCH BASIN	- - - = EQUIPOTENTIAL LINES
⊠ = UTILITY PEDESTAL	→ = GROUNDWATER FLOW

FIGURE 5: GROUNDWATER FLOW DIRECTION MAP
(groundwater levels recorded on 11/5/96)

DESIGNED BY: DRAWN BY: KS	NO.	REVISIONS	DATE
CHECKED BY: EG			
APPROVED BY:			
DATE: 11/13/96			
SCALE: 1"=40'			

SCALE	BAR OR ORIGINAL DRAWING IS TO SCALE
0 10 20 40	

KAPUR & ASSOCIATES, INC. CONSULTING ENGINEERS MILWAUKEE, WISCONSIN (414) 351-8868 FAX 414-351-4117
K&A
CITY OF PLYMOUTH MUNICIPAL GARAGE 1004 VALLEY ROAD PLYMOUTH, WI 53073
PROJECT NO.
SHEET NO.

PLOT DATE & TIME: 02/05/97 Time: 09:25 DWS:SCALE: 1" = 20.00
 DWG. & TIME: 02/05/97 Time: 09:25
 DELLSHIP: MUMPHIA, LADGOWSKI, COAKLEY

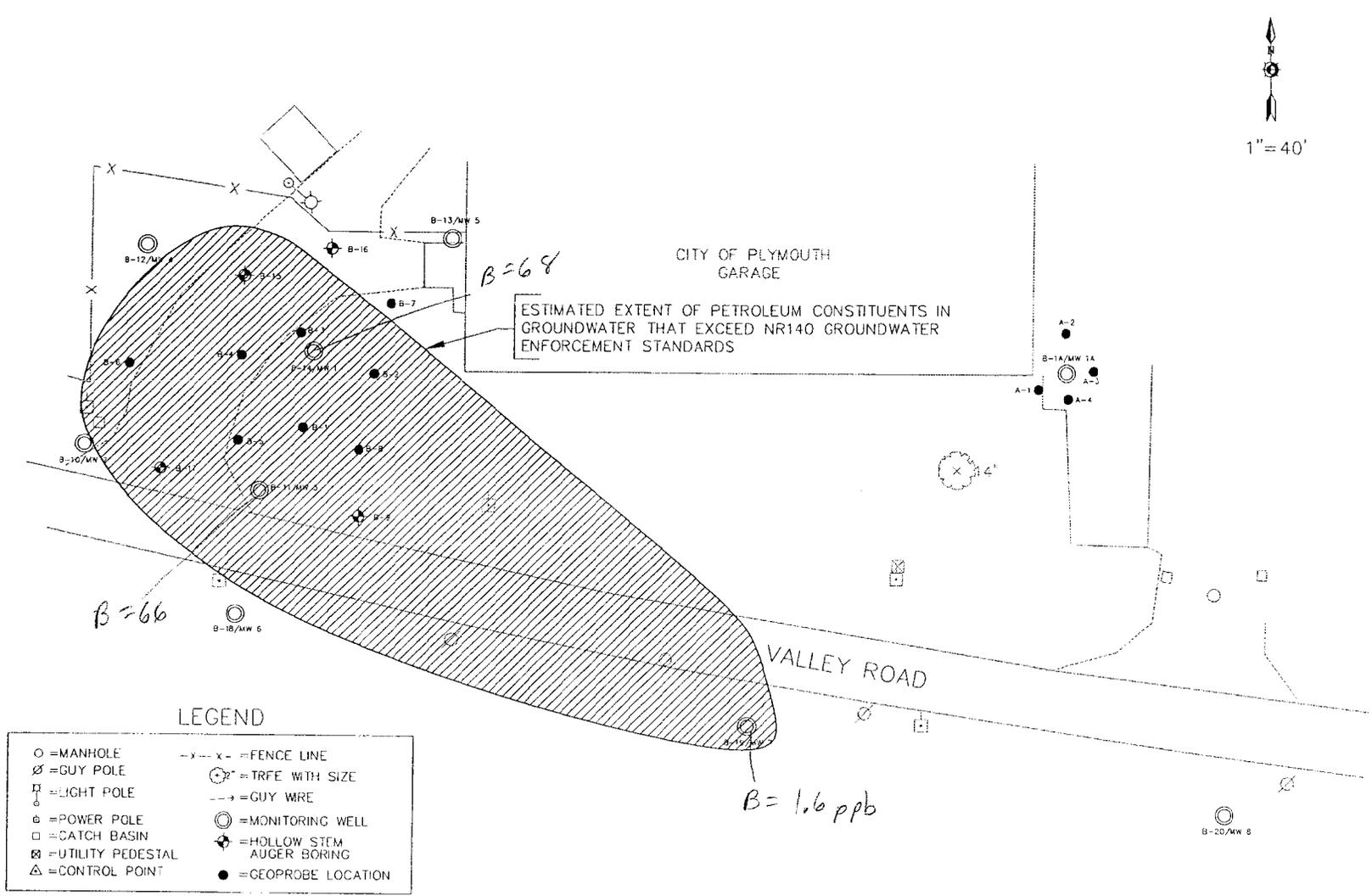


FIGURE 8: ESTIMATED EXTENT OF PETROLEUM CONSTITUENTS IN GROUNDWATER

SCALE DATE ON ORIGINAL DRAWING IS 40 SCALE	DESIGNED BY:	NO.	REVISIONS	DATE
	DRAWN BY: KS CHECKED BY: EG APPROVED BY: DATE: 11/13/96 SCALE: 1"=40'			
K&A KAPUR & ASSOCIATES, INC. CONSULTING ENGINEERS W- WAUKEGON, WISCONSIN FAX: 414-251-9417				
CITY OF PLYMOUTH MUNICIPAL GARAGE 1004 VALLEY ROAD PLYMOUTH, WI 53073				
PROJECT NO.				
SHEET NO.				

Table 2
Laboratory Analytical Results
Groundwater Monitoring
City of Plymouth-Municipal Garage

Parameters	Sample ID									
	MW-1				MW-1A				NR ES	NR PAL
Sample Date	10/01/97	02/09/98- 02/10/98	07/22/98- 07/23/98	10/28/98- 10/29/98	10/01/97	02/09/98- 02/10/98	07/22/98- 07/23/98	10/28/98- 10/29/98	NAP	NAP
Water Quality Parameters										
DRO (ppb)	490	<27	230	110	1900	NA	250	NA	NS	NS
GRO (ppb)	870	160	380	420	<30	<30	NA	<30	NS	NS
PVOCs (ppb)										
Methyl tert-Butyl Ether	<0.58	2.5	<0.20	8.4	<0.29	<0.20	<0.20	<0.20	60	12
Benzene	44	13	24	18	<0.31	<0.20	<0.20	<0.20	5	0.5
Toluene	11	1.5	5.2	4.5	<0.32	<0.20	<0.20	<0.20	343	68.6
Ethylbenzene	55	9.6	28	20	<0.35	<0.30	<0.30	<0.30	700	140
o-Xylene	7.6	1.0	3.8	3.0	<0.36	<0.30	<0.30	<0.30	620*	124*
p,m-Xylenes	110	10	49	33	<0.73	<0.60	<0.60	<0.60	620*	124*
1,2,4-Trimethylbenzene	110	16	32	37	<0.36	<0.36	<0.30	<0.30	480**	96**
1,3,5-Trimethylbenzene	25	24	11	7.9	<0.38	<0.38	<0.30	<0.30	480**	96**
Natural Attenuation Parameters										
Temperature (° C)	NA	NA	NA	NA	NA	NA	NA	NA	NAP	NAP
pH	NA	NA	NA	NA	NA	NA	NA	NA	NAP	NAP
Dissolved Oxygen (ppm)	NA	NA	NA	NA	NA	NA	NA	NA	NAP	NAP
Redox Potential (mV)	NA	NA	NA	NA	NA	NA	NA	NA	NAP	NAP
Ferrous Iron (ppm)	NA	NA	NA	NA	NA	NA	NA	NA	NAP	NAP
Chloride (ppm)	NA	NA	NA	NA	NA	NA	NA	NA	NAP	NAP
Sulfate (ppm)	NA	NA	NA	NA	NA	NA	NA	NA	NAP	NAP
Nitrate/Nitrite (ppm)	NA	NA	NA	NA	NA	NA	NA	NA	NAP	NAP
Manganese -Total (ppm)	NA	NA	NA	NA	NA	NA	NA	NA	NAP	NAP
Methane (ppm)	NA	NA	NA	NA	NA	NA	NA	NA	NAP	NAP
Total Organic Carbon (ppm)	NA	NA	NA	NA	NA	NA	NA	NA	NAP	NAP

Table 2 (cont.)
Laboratory Analytical Results
Groundwater Monitoring
City of Plymouth-Municipal Garage

Parameters	Sample ID									
	MW-2				MW-3				NR ES	NR PAL
Sample Date	10/01/97	02/09/98- 02/10/98	07/22/98- 07/23/98	10/28/98- 10/29/98	10/01/97	02/09/98- 02/10/98	07/22/98- 07/23/98	10/28/98- 10/29/98	NAP	NAP
Water Quality Parameters										
DRO (ppb)	460	<27	<26	41	590	480	64	140	NS	NS
GRO (ppb)	<20	<30	<30	<30	770	2400	230	97	NS	NS
PVOCs (ppb)										
Methyl tert-Butyl Ether	<0.29	<0.20	<0.20	<0.20	<0.29	<2.0	1.4	0.40	60	12
Benzene	<0.31	<0.20	<0.20	<0.20	92	88	62	24	5	0.5
Toluene	<0.32	<0.20	<0.20	<0.20	5.5	18	0.30	0.70	343	68.6
Ethylbenzene	<0.35	<0.30	<0.30	<0.30	99	310	22	18	700	140
o-Xylene	<0.36	<0.30	<0.30	<0.30	130	150	<0.30	<0.30	620*	124*
p,m-Xylenes	<0.73	<0.60	<0.60	<0.60	18	740	<0.60	<0.60	620*	124*
1,2,4-Trimethylbenzene	<0.36	<0.30	<0.30	<0.30	72	2400	9.6	9.9	480**	96**
1,3,5- Trimethylbenzene	<0.38	<0.30	<0.30	<0.30	12	310	<0.30	<0.30	480**	96**
Natural Attenuation Parameters										
Temperature (° C)	NA	NA	NA	NA	13.6	NA	NA	NA	NAP	NAP
pH	NA	NA	NA	NA	6.84	NA	NA	NA	NAP	NAP
Dissolved Oxygen (ppm)	NA	NA	NA	NA	6.49	NA	NA	NA	NAP	NAP
Redox Potential (mV)	NA	NA	NA	NA	-37.8	NA	NA	NA	NAP	NAP
Ferrous Iron (ppm)	NA	NA	NA	NA	0.41	NA	NA	NA	NAP	NAP
Chloride (ppm)	NA	NA	NA	NA	140	NA	NA	NA	NAP	NAP
Sulfate (ppm)	NA	NA	NA	NA	26	NA	NA	NA	NAP	NAP
Nitrate/Nitrite (ppm)	NA	NA	NA	NA	<0.017	NA	NA	NA	NAP	NAP
Manganese -Total (ppm)	NA	NA	NA	NA	2.0	NA	NA	NA	NAP	NAP
Methane (ppm)	NA	NA	NA	NA	0.74	NA	NA	NA	NAP	NAP
Total Organic Carbon (ppm)	NA	NA	NA	NA	26	NA	NA	NA	NAP	NAP

**Table 2 (cont.)
Laboratory Analytical Results
Groundwater Monitoring
City of Plymouth-Municipal Garage**

Parameters	Sample ID									
	MW-4				MW-5				NR ES	NR PAL
Sample Date	10/01/97	02/09/98- 02/10/98	07/22/98- 07/23/98	10/28/98- 10/29/98	10/01/97	02/09/98- 02/10/98	07/22/98- 07/23/98	10/28/98- 10/29/98	NAP	NAP
Water Quality Parameters										
DRO (ppb)	120	<27	<26	78	130	<27	<27	<27	NS	NS
GRO (ppb)	<20	<30	<30	<30	<20	<30	<30	<30	NS	NS
PVOCs (ppb)										
Methyl tert-Butyl Ether	<0.29	<0.20	<0.20	<0.20	<0.29	<0.20	<0.20	<0.20	60	12
Benzene	<0.31	<0.20	<0.20	<0.20	<0.31	<0.20	<0.20	<0.20	5	0.5
Toluene	<0.32	0.20	<0.20	<0.20	<0.32	<0.20	<0.20	<0.20	343	68.6
Ethylbenzene	0.46	<0.30	<0.30	<0.30	<0.35	<0.30	<0.30	<0.30	700	140
o-Xylene	<0.36	<0.30	<0.30	<0.30	<0.36	<0.30	<0.30	<0.30	620*	124*
p,m-Xylenes	1.0	<0.60	<0.60	<0.60	<0.73	<0.60	<0.60	<0.60	620*	124*
1,2,4-Trimethylbenzene	0.71	<0.30	<0.30	<0.30	<0.36	<0.36	<0.30	<0.30	480**	96**
1,3,5- Trimethylbenzene	0.43	<0.30	<0.30	<0.30	<0.38	<0.38	<0.30	<0.30	480**	96**
Natural Attenuation Parameters										
Temperature (° C)	13.3	9.8	13.73	14.84	NA	NA	NA	NA	NAP	NAP
pH	7.20	6.98	7.11	7.17	NA	NA	NA	NA	NAP	NAP
Dissolved Oxygen (ppm)	7.54	8.13	6.84	0	NA	NA	NA	NA	NAP	NAP
Redox Potential (mV)	-62.0	472	374	296	NA	NA	NA	NA	NAP	NAP
Ferrous Iron (ppm)	0	0.6	0.4	0.7	NA	NA	NA	NA	NAP	NAP
Chloride (ppm)	30	23	23.7	28.4	NA	NA	NA	NA	NAP	NAP
Sulfate (ppm)	63	34.8	34.9	38.8	NA	NA	NA	NA	NAP	NAP
Nitrate/Nitrite (ppm)	<0.017	<0.14	<0.14	<0.14	NA	NA	NA	NA	NAP	NAP
Manganese -Total (ppm)	0.23	0.162	0.452	0.21	NA	NA	NA	NA	NAP	NAP
Methane (ppm)	0.036	0.038	0.032	0.0017	NA	NA	NA	NA	NAP	NAP
Total Organic Carbon (ppm)	17	3.0	<3.0	<3	NA	NA	NA	NA	NAP	NAP

Table 2 (cont.)
Laboratory Analytical Results
Groundwater Monitoring
City of Plymouth-Municipal Garage

Parameters	Sample ID									
	MW-6				MW-7				NR ES	NR PAL
Sample Date	10/01/97	02/09/98- 02/10/98	07/22/98- 07/23/98	10/28/98- 10/29/98	10/01/97	02/09/98- 02/10/98	07/22/98- 07/23/98	10/28/98- 10/29/98	NAp	NAp
Water Quality Parameters										
DRO (ppb)	120	<27	<26	63	27	<27	<26	<26	NS	NS
GRO (ppb)	24	<30	<30	<30	<20	<30	<30	<30	NS	NS
PVOCs (ppb)										
Methyl tert-Butyl Ether	<0.29	<0.20	<0.20	<0.20	<0.29	<0.20	<0.20	<0.20	60	12
Benzene	<0.31	<0.20	<0.20	<0.20	<0.31	<0.20	<0.20	<0.20	5	0.5
Toluene	<0.32	<0.20	<0.20	<0.20	<0.32	<0.20	<0.20	<0.20	343	68.6
Ethylbenzene	<0.38	<0.30	<0.30	<0.30	<0.35	<0.30	<0.30	<0.30	700	140
o-Xylene	<0.36	<0.30	<0.30	<0.30	<0.36	<0.30	<0.30	<0.30	620*	124*
p,m-Xylenes	<0.73	<0.60	<0.60	<0.60	<0.73	<0.60	<0.60	<0.60	620*	124*
1,2,4-Trimethylbenzene	0.59	<0.30	<0.30	<0.30	<0.36	<0.30	<0.30	<0.30	480**	96**
1,3,5- Trimethylbenzene	<0.38	<0.30	<0.30	<0.30	<0.38	<0.30	<0.30	<0.30	480**	96**
Natural Attenuation Parameters										
Temperature (° C)	NA	NA	NA	NA	13.1	7.72	12.83	14.0	NAp	NAp
pH	NA	NA	NA	NA	6.78	6.68	7.35	6.74	NAp	NAp
Dissolved Oxygen (ppm)	NA	NA	NA	NA	1.30	1.86	2.90	16.0	NAp	NAp
Redox Potential (mV)	NA	NA	NA	NA	-33.4	341	399	329	NAp	NAp
Ferrous Iron (ppm)	NA	NA	NA	NA	1.0	0.8	0	1.5	NAp	NAp
Chloride (ppm)	NA	NA	NA	NA	80	91.1	119	181	NAp	NAp
Sulfate (ppm)	NA	NA	NA	NA	52	39.8	26.2	11.1	NAp	NAp
Nitrate/Nitrite (ppm)	NA	NA	NA	NA	<0.017	<0.14	<0.14	<0.14	NAp	NAp
Manganese -Total (ppm)	NA	NA	NA	NA	0.42	0.7	0.401	0.392	NAp	NAp
Methane (ppm)	NA	NA	NA	NA	0.019	0.015	0.0063	0.090	NAp	NAp
Total Organic Carbon (ppm)	NA	NA	NA	NA	22	7.0	<3	<3	NAp	NAp

Table 2 (cont.)
Laboratory Analytical Results
Groundwater Monitoring
City of Plymouth-Municipal Garage

Parameters	Sample ID									
	MW-8				MW-9				NR ES	NR PAL
	10/01/97	02/09/98- 02/10/98	07/22/98- 07/23/98	10/28/98- 10/29/98	10/01/97	02/09/98- 02/10/98	07/22/98- 07/23/98	10/28/98- 10/29/98	NAP	NAP
Water Quality Parameters										
DRO (ppb)	37	<27	<26	57	NA	190	<26	110	NS	NS
GRO (ppb)	<20	<30	<30	<30	NA	820	<30	39	NS	NS
PVOCs (ppb)										
Methyl tert-Butyl Ether	<0.29	<0.20	<0.20	<0.20	NA	7.8	<0.20	<0.20	60	12
Benzene	<0.31	<0.20	<0.20	<0.20	NA	80	3.3	17	5	0.5
Toluene	<0.32	<0.20	<0.20	<0.20	NA	7.3	<0.20	0.80	343	68.6
Ethylbenzene	<0.35	<0.30	<0.30	<0.30	NA	14	<0.30	5.8	700	140
o-Xylene	<0.36	<0.30	<0.30	<0.30	NA	11	<0.30	0.90	620*	124*
p,m-Xylenes	<0.73	<0.60	<0.60	<0.60	NA	34	<0.60	5.6	620*	124*
1,2,4-Trimethylbenzene	<0.36	<0.30	<0.30	<0.30	NA	9.9	<0.30	4.5	480**	96**
1,3,5- Trimethylbenzene	<0.38	<0.30	<0.30	<0.30	NA	22	<0.30	1.1	480**	96**
Natural Attenuation Parameters										
Temperature (° C)	NA	NA	12.08	NA	NA	7.98	13.27	15.63	NAP	NAP
pH	NA	NA	7.21	NA	NA	7.3	7.27	7.23	NAP	NAP
Dissolved Oxygen (ppm)	NA	NA	3.34	NA	NA	2.48	3.34	0	NAP	NAP
Redox Potential (mV)	NA	NA	431	NA	NA	303	431	239	NAP	NAP
Ferrous Iron (ppm)	NA	NA	0.4	NA	NA	0	0.4	0.3	NAP	NAP
Chloride (ppm)	NA	NA	38.1	NA	NA	35.4	22.0	60.3	NAP	NAP
Sulfate (ppm)	NA	NA	32.2	NA	NA	6.7	16.6	7.6	NAP	NAP
Nitrate/Nitrite (ppm)	NA	NA	<0.14	NA	NA	<0.14	<0.14	<0.14	NAP	NAP
Manganese -Total (ppm)	NA	NA	0.202	NA	NA	0.18	0.415	0.234	NAP	NAP
Methane (ppm)	NA	NA	0.0039	NA	NA	0.25	0.10	0.16	NAP	NAP
Total Organic Carbon (ppm)	NA	NA	<3.0	NA	NA	4	<3.0	<3.0	NAP	NAP

**Table 2 (cont.)
Laboratory Analytical Results
Groundwater Monitoring
City of Plymouth-Municipal Garage**

Parameters	Sample ID									
	MW-10				MW-11				NR ES	NR PAL
Sample Date	10/01/97	02/09/98- 02/10/98	07/22/98- 07/23/98	10/28/98- 10/29/98	10/01/97	02/09/98- 02/10/98	07/22/98- 07/23/98	10/28/98- 10/29/98	NAP	NAP
Water Quality Parameters										
DRO (ppb)	NA	290	<26	120	NA	88	<26	65	NS	NS
GRO (ppb)	NA	<30	<30	<30	NA	<30	<30	<30	NS	NS
PVOCs (ppb)									NS	NS
Methyl tert-Butyl Ether	NA	<0.20	<0.20	1.4	NA	<0.20	<0.20	<0.20	60	12
Benzene	NA	<0.20	<0.20	<0.2	NA	<0.20	<0.20	<0.20	5	0.5
Toluene	NA	<0.20	<0.20	0.30	NA	<0.20	<0.20	<0.20	343	68.6
Ethylbenzene	NA	<0.30	<0.30	22	NA	<0.30	<0.30	<0.30	700	140
o-Xylene	NA	<0.30	<0.30	<0.30	NA	<0.30	<0.30	<0.30	620*	124*
p,m-Xylenes	NA	<0.60	<0.60	<0.60	NA	<0.60	<0.60	<0.60	620*	124*
1,2,4-Trimethylbenzene	NA	<0.30	<0.30	9.6	NA	<0.30	<0.30	<0.30	480**	96**
1,3,5-Trimethylbenzene	NA	<0.30	<0.30	<0.30	NA	<0.30	<0.30	<0.30	480**	96**
Natural Attenuation Parameters										
Temperature (° C)	NA	N/T	15.84	14.30	NA	7.96	14.84	14.79	NAP	NAP
pH	NA	N/T	7.26	6.90	NA	7.15	6.85	7.07	NAP	NAP
Dissolved Oxygen (ppm)	NA	N/T	6.14	0	NA	4.17	6.06	25.5	NAP	NAP
Redox Potential (mV)	NA	N/T	410	207	NA	320	441	312	NAP	NAP
Ferrous Iron (ppm)	NA	N/T	0.8	1.5	NA	0.6	0.8	0.4	NAP	NAP
Chloride (ppm)	NA	147	236	71.6	NA	112	95.6	71.6	NAP	NAP
Sulfate (ppm)	NA	15.8	17.5	27.6	NA	33.6	20.7	27.6	NAP	NAP
Nitrate/Nitrite (ppm)	NA	2.31	<0.14	<0.14	NA	1.0	<0.14	<0.14	NAP	NAP
Manganese -Total (ppm)	NA	0.729	2.24	0.146	NA	6.3	0.455	0.146	NAP	NAP
Methane (ppm)	NA	0.027	0.014	0.049	NA	0.01	0.031	0.026	NAP	NAP
Total Organic Carbon (ppm)	NA	10.6*	<3.0	<3.0	NA	12	<3.0	<3.0	NAP	NAP

+ Sample for this parameter was collected on 02/20/98.

Table 2 (cont.)
Laboratory Analytical Results
Groundwater Monitoring
City of Plymouth Municipal Garage

Parameters	Sample ID				NR ES	NR PAL
	MW-1D	MW-7D	MW-2D	MW-6D		
Sample Date	10/01/97	02/10/98	07/23/98	10/29/98	NAP	NAP
Groundwater Elevation	2.67	7.39	4.08	7.24	NAP	NAP
Water Quality Parameters						
DRO (ppb)	500	<27	<26	56	NS	NS
GRO (ppb)	880	<30	<30	<30	NS	NS
PVOCs (ppb)						
Methyl tert-Butyl Ether	<0.58	<0.20	<0.20	<0.20	60	12
Benzene	43	<0.20	<0.20	<0.20	5	0.5
Toluene	10	<0.20	<0.20	<0.20	343	68.6
Ethylbenzene	55	<0.30	<0.30	<0.30	700	140
o-Xylene	7.3	<0.30	<0.30	<0.30	620*	124*
p,m-Xylenes	110	<0.60	<0.60	<0.60	620*	124*
1,2,4-Trimethylbenzene	26	<0.30	<0.30	<0.30	480**	96**
1,3,5-Trimethylbenzene	110	<0.30	<0.30	<0.30	480**	96**
Natural Attenuation Parameters						
Temperature (° C)	NA	NA	NA	NA	NAP	NAP
pH	NA	NA	NA	NA	NAP	NAP
Dissolved Oxygen (ppm)	NA	NA	NA	NA	NAP	NAP
Redox Potential (mV)	NA	NA	NA	NA	NAP	NAP
Ferrous Iron (ppm)	NA	NA	NA	NA	NAP	NAP
Chloride (ppm)	NA	NA	NA	NA	NAP	NAP
Sulfate (ppm)	NA	NA	NA	NA	NAP	NAP
Nitrate/Nitrite (ppm)	NA	NA	NA	NA	NAP	NAP
Manganese -Total (ppm)	NA	NA	NA	NA	NAP	NAP
Methane (ppm)	NA	NA	NA	NA	NAP	NAP
Total Organic Carbon (ppm)	NA	NA	NA	NA	NAP	NAP

ES = Enforcement Standard per NR140 in ppb; PAL = Preventive Action Limit per NR 140 in ppb; NS = No Standard promulgated in NR140;

DRO = Diesel Range Organics; GRO = Gasoline Range Organics; PVOCs = Petroleum Volatile Organic Compounds; NA = Not Analyzed;

NT = Not Tested; NAP = Not Applicable; ppm = parts per million; ppb = parts per billion; mV = millivolts

* = For total xylenes, **=1,2,4-and 1,3,5-combined

Concentrations that are shaded exceed the NR 140 groundwater ES

Only compounds detected in at least one sample are shown in the table.